What is claimed is:

1. A method for distilling a raw material liquid containing (meth)acrylic acid substantially free from azeotropic solvents, which comprising;

subjecting gas phase catalytic oxidation reaction of propylene and/or acrolein with a molecular oxygen-containing gas or by gas phase catalytic oxidation reaction of at least one selected from the group consisting of isobutylene, t-butyl alcohol and methacrolein with the molecular oxygen-containing gas to form a mixed gas;

feeding the resulting mixed gas to a (meth)acrylic acid collection column wherein materials containing (meth)acrylic acid are collected with a collection agent; and

feeding to a distillation column the raw material liquid which temperature is substantially equal to that of an entrance place in the column to distillate.

2. A method according to claim 1, wherein a concentration in the raw material liquid is not less than 85% by weight, based on the weight of the liquid.

3. A method according to claim 1, wherein the column is at least one selected from the group consisting of an azeotropic distillation column for a (meth)acrylic acid solution collected by the collection agent; an aldehyde distillation column for the raw material liquid treated by an aldehyde treating agent; and a distillation column for separating high boiling point materials for the raw material liquid.

4. A method according to claim 1, wherein a temperature of the raw material liquid is adjusted by heating or cooling.

5. A method according to claim 1, wherein a temperature of the raw material liquid to be fed (T0) and a temperature of the entrance place in the column (T1) fulfill the following formula (1a):

$$0°C \leqq T0-T1 \leqq 30°C \qquad (1a).$$

6. A method according to claim 1, wherein a temperature of the raw material liquid to be fed (T0) and a temperature of the entrance place in the column (T1) fulfill the following formula (1b):

$$0°C \leqq T0-T1 \leqq 20°C \qquad (1b).$$

7. A method according to claim 1, wherein a temperature of the raw material liquid to be fed (T0) and a temperature of the entrance place in the column (T1) fulfill the following formula (1c):

$$0°C \leqq T0-T1 \leqq 10°C \qquad (1c).$$

8. A method according to claim 1, wherein a fluctuation range ($\triangle T0$) of temperature (T0) of the raw material liquid is within 10°C.

9. A method according to claim 1, wherein a fluctuation range ($\triangle T0$) of temperature (T0) of the raw material liquid is within 5°C.

10. A method according to claim 1, wherein a fluctuation range ($\triangle T0$) of temperature (T0) of the raw material liquid is within 3°C.

11. A method according to claim 4, wherein the heating

or cooling is performed by a heat exchanger.

12. A method according to claim 4, wherein the heating or cooling is performed based on the result that a temperature of the entrance place in the column is measured.

13. A method according to claim 1, wherein a temperature of the raw material liquid to be fed to the column is lower than that of a bottom part in the column.

14. A method according to claim 1, wherein the raw material liquid is divided into two or more, and then fed to the column.

15. A method according to claim 1, wherein the collection agent is water or a process wastewater.

16. A method according to claim 15, wherein (meth)acrylic acid is recovered employing an azeotropic solvent by separating the collection agent therefrom.

17. A method according to claim 16, wherein the azeotropic solvent is at least one selected from the group consisting of diethyl ketone, methyl propyl ketone, methyl isobutyl ketone, methyl-t-butyl ketone, n-propyl acetate, toluene, heptane, and methylcyclohexane.

18. A method according to claim 1, wherein the column is maintained under the following conditions:

Operation pressure: 10 to 400 hPa

Top temperature of the column: 45°C to 110°C

Temperature at which the raw material liquid is fed to the entrance place in the column: 40°C to 120°C

Bottom temperature: 50°C to 190°C

Reflux ratio: 0.1 to 5.